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| Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Navy | | | | | | | | | | Date: May 2017 | | |
| Appropriation/Budget Activity 1319: Research, Development, Test & Evaluation, Navy I BA 7: Operational Systems Development | | | | | R-1 Program Element (Number/Name) PE 0207161N I Tactical Aim Missiles | | | | | | | |
| COST (\$ in Millions) | Prior Years | FY 2016 | FY 2017 | FY 2018 Base | FY 2018 OCO | FY 2018 Total | FY 2019 | FY 2020 | FY 2021 | FY 2022 | Cost To Complete | Total Cost |
| Total Program Element | 387.020 | 59.053 | 56.285 | 42.884 | - | 42.884 | 33.458 | 0.513 | 0.539 | 0.554 | 0.000 | 580.306 |
| 0457: AIM-9X | 387.020 | 59.053 | 56.285 | 42.884 | - | 42.884 | 33.458 | 0.513 | 0.539 | 0.554 | 0.000 | 580.306 |
| Program MDAP/MAIS Code: Project MDAP/MAIS Code(s): 442 | | | | | | | | | | | | |
| A. Mission Description and Budget Item Justification | | | | | | | | | | | | |
| The AIM-9X (Sidewinder) short-range air-to-air missile is a long term evolution of the AIM-9 series of fielded missiles. The AIM-9X missile program provides a launch and leave, air combat munition that uses passive infrared (IR) energy for acquisition and tracking of enemy aircraft and complements the Advanced Medium Range Air-to-Air Missile (AMRAAM). Air superiority in the short-range air-to-air missile arena is essential and includes first shot, first kill opportunity against an enemy employing IR countermeasures. The AIM-9X employs several components common with the AIM-9M (fuze, rocket motor and warhead). Anti-Tamper features have been incorporated to protect improvements inherent in this design. AIM-9X is a Post Milestone C, Acquisition Category IC joint service program with Navy lead. | | | | | | | | | | | | |
| The Block II program has completed independent operational testing and found to be operationally effective and suitable. The program achieved Navy Initial Operational Capability (IOC) in March 2015 and received Full Rate Production decision in August 2015. The first Full Rate Production Lot contract was awarded in September 2015. This budget line will continue technical refresh of critical obsolete components, implement cost reduction initiatives, improve insensitive munitions performance, correct deficiencies, and increase capabilities through software enhancements, and conduct testing to ensure platform integration onto threshold US Navy aircraft. | | | | | | | | | | | | |
| This program is funded under OPERATIONAL SYSTEMS DEVELOPMENT because it includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate funding in the current or subsequent fiscal year. | | | | | | | | | | | | |
| B. Program Change Summary (\$ in Millions) | | | | FY 2016 | FY 2017 | FY 2018 Base | FY 2018 OCO | FY 2018 Total | | | | |
| Previous President's Budget | | | | 71.016 | 56.285 | 36.569 | - | 36.569 | | | | |
| Current President's Budget | | | | 59.053 | 56.285 | 42.884 | - | 42.884 | | | | |
| Total Adjustments | | | | -11.963 | 0.000 | 6.315 | - | 6.315 | | | | |
| • Congressional General Reductions | | | | - | - | | | | | | | |
| • Congressional Directed Reductions | | | | - | - | | | | | | | |
| • Congressional Rescissions | | | | - | - | | | | | | | |
| • Congressional Adds | | | | - | - | | | | | | | |
| • Congressional Directed Transfers | | | | - | - | | | | | | | |
| • Reprogrammings | | | | -10.193 | 0.000 | | | | | | | |
| • SBIR/STTR Transfer | | | | -1.769 | 0.000 | | | | | | | |
| • Program Adjustments | | | | 0.000 | 0.000 | 6.170 | - | 6.170 | | | | |
| • Rate/Misc Adjustments | | | | -0.001 | 0.000 | 0.145 | - | 0.145 | | | | |

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| Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Navy | | Date: May 2017 |
| Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy I BA 7: Operational Systems Development</i> | | R-1 Program Element (Number/Name) PE 0207161N / <i>Tactical Aim Missiles</i> |
| <p><u>Change Summary Explanation</u></p> <p>Schedule:</p> <ol style="list-style-type: none"> 1. The System Improvement Program (SIP) II contract has been extended 19 months to complete F-22 specific software deficiency identified during F-22 increment 3.2b Development Testing. 2. SIP III Missile software version 9.4 Integration Testing (IT-D1) has been extended 6 months to verify technical requirements, and performance thresholds of the performance specification, to verify the AIM-9X Block II missile system is ready for Follow-On Operational Test and Evaluation (FOT&E, OT-D1). 3. Operation Testing OT-D1 start date as well as Operational Test Readiness Review (OTRR) has been extended 6 months to the end of IT-D1 to share results with DT and minimize program cost. 4. The Lot 17 Hardware Engineering Change Proposal (ECP) cut-in date has been extended 6 months due to AIM-9X Block II+ productionization issues discovered during production qualification. 5. The planned hardware release has been moved from Lot 19 (FY 2019) to Lot 20 (FY 2020) due to hardware development issues experienced during development of replacement components. This is primarily due to diminishing manufacturing resources. 6. The SIP III hardware Preliminary Design Review (PDR) has has been extended 6 months to allow for additional time to redesign the guidance unit processor. 7. The SIP III hardware Critical Design Review (CDR) has been extended 18 months due to allow for additional time to redesign the guidance unit processor. <p>Cost:</p> <p>FY 2018 original funding profile for SIP III included tasks that were planned to have been completed in FY 2017. However, the final SIP III contract award revised the weapon system development schedule leading to a rephasing of taskings and funds from FY 2016 into FY 2018.</p> <p>FY 2016 includes \$22.0M set aside pending final disposition of the proposed Congressional rescission. The five-year SIP III development contract price was negotiated down as a result of removing the Control Actuation System component redesign from the final contract. The Control Actuation System redesign effort has been moved into a planned AIM-9X future development increment outside the Future Years Defense Plan.</p> | | |

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| Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy | | | | | | | | | | Date: May 2017 | | |
| Appropriation/Budget Activity 1319 / 7 | | | | | R-1 Program Element (Number/Name) PE 0207161N / Tactical Aim Missiles | | | | Project (Number/Name) 0457 / AIM-9X | | | |
| COST (\$ in Millions) | Prior Years | FY 2016 | FY 2017 | FY 2018 Base | FY 2018 OCO | FY 2018 Total | FY 2019 | FY 2020 | FY 2021 | FY 2022 | Cost To Complete | Total Cost |
| 0457: AIM-9X | 387.020 | 59.053 | 56.285 | 42.884 | - | 42.884 | 33.458 | 0.513 | 0.539 | 0.554 | 0.000 | 580.306 |
| Quantity of RDT&E Articles | | - | - | - | - | - | - | - | - | - | | |
| Project MDAP/MAIS Code: 442 | | | | | | | | | | | | |
| A. Mission Description and Budget Item Justification | | | | | | | | | | | | |
| AIM-9X is a long-term evolution of the AIM-9, a fielded system, qualifying this as a research category operational systems development. The AIM-9X short range air-to-air missile modification program provides a launch and leave, air combat munition that uses passive Infra-Red (IR) energy for acquisition and tracking of enemy aircraft and complements the Advanced Medium Range Air-to-Air Missile (AMRAAM). Air superiority in the short range air-to-air missile arena is essential and includes first shot, first kill opportunity against an enemy employing IR countermeasures. The AIM-9X employs several components common with the AIM-9M (fuze, rocket motor and warhead). The AIM-9X Block II missile is critical to project power and win decisively in accordance with the Fiscal Year 2015 Defense Planning Guidance and Navy's Navigation Plan 2015 - 2019. The missile is essential to Pacific Command plans to counter threats employed by advanced Digital Radio Frequency Memory (DRFM) electronic attack, cruise missiles, and Unmanned Aerial Vehicles. | | | | | | | | | | | | |
| This line item continues Technical Refresh of components and software, as well as incorporates advanced development products and capabilities, to meet threshold requirements of the capabilities production document. Specifically, the program will redesign, develop and integrate components facing obsolescence, implement cost reduction initiatives, enhance insensitive munitions performance and incrementally improve operational flight software to fully utilize capabilities of the missile. | | | | | | | | | | | | |
| The program strategy is to first redesign the control actuation system (CAS) battery, along with the AIM-9X Block II Plus (AIM-9X-3) and incorporate it into the Lot 17 (FY 2017) production missile. Next, the program will complete missile software improvements (software version 9.4) and release it into Lot 18 (FY 2018) and prior missiles. The software will provide improved infrared counter-countermeasures, correct partial degraded cueing, improved lock on after launch capability, improve small target acquisition, and provide surface attack capability. | | | | | | | | | | | | |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each) | | | | | | | FY 2016 | FY 2017 | FY 2018 Base | FY 2018 OCO | FY 2018 Total | |
| Title: Product Development | | | | | | | 52.932 | 48.870 | 31.641 | 0.000 | 31.641 | |
| Articles: | | | | | | | - | - | - | - | - | |
| Description: Continuation of Primary Hardware Development/Pre-Planned Product Improvement (Tech Refresh) efforts for the AIM-9X weapon system. This includes Systems Engineering / Program management, as well as support required, to ensure AIM-9X missile integration with threshold US Navy aircraft platforms. This also includes efforts to redesign missile components in order to resolve Block II component obsolescence to ensure missile producibility beyond Lot 20, implement cost reduction initiatives, and to comply with the Insensitive Munitions (IM) requirements as established by Joint Requirements Oversight Council memo dated 11 February 2009. | | | | | | | | | | | | |

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| Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy | | | | Date: May 2017 | | |
| Appropriation/Budget Activity 1319 / 7 | | R-1 Program Element (Number/Name) PE 0207161N / Tactical Aim Missiles | | Project (Number/Name) 0457 / AIM-9X | | |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each) | | FY 2016 | FY 2017 | FY 2018 Base | FY 2018 OCO | FY 2018 Total |
| <p>FY 2016 Accomplishments: Completed v9.315 software release to fleet. Completed Preliminary Design Review (PDR) and Critical Design Review (CDR) necessary to incorporate the CAS battery and Block II+ material design changes into the missile. Continued Engineering Manufacturing Development required to redesign, integrate, test, and qualify components due to obsolescence and implement cost reduction initiatives. Continued to develop v9.4 Block II software improvements to utilize full capability of the missile. Continued to develop missile hardware design improvements necessary to enhance IM performance.</p> <p>FY 2017 Plans: Incorporate CAS battery and Block II+ material design changes into production. Complete v9.316 software release to resolve F-22 aircraft deficiencies discovered during Block II operational testing. Continue Engineering Manufacturing Development required to redesign, integrate, test and qualify components due to obsolescence and implement cost reduction initiatives. Continue to develop v9.4 Block II software improvements to utilize full capability of the missile. Continue to develop missile hardware design improvements necessary to enhance IM performance.</p> <p>FY 2018 Base Plans: Continue Engineering Manufacturing Development required to redesign, integrate, test and qualify components due to obsolescence and implement cost reduction initiatives. Continue to develop v9.4 Block II software improvements to utilize full capability of the missile. Continue to develop missile hardware design improvements necessary to enhance IM performance. Complete CDR necessary to incorporate IMU, dome and processor redesigns into Lot 20 production.</p> <p>FY 2018 OCO Plans: N/A</p> | | | | | | |
| <p>Title: Test and Evaluation Activities and Support</p> <p>Articles:</p> <p>Description: Test and Evaluation (T&E) and associated governmental support required to ensure the AIM-9X missile integration with threshold US Navy aircraft platforms (F/A-18A+/C/D/E/F). Beginning in FY 2016 the program joined in with the US Air Force efforts in testing the next tech refresh version of software improvements to the missile, Operation Flight Software version 9.4.</p> <p>FY 2016 Accomplishments:</p> | | 5.855 - | 7.196 - | 11.036 - | 0.000 - | 11.036 - |

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| Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy | | | | Date: May 2017 | | |
| Appropriation/Budget Activity 1319 / 7 | | R-1 Program Element (Number/Name) PE 0207161N / Tactical Aim Missiles | | Project (Number/Name) 0457 / AIM-9X | | |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each) | | FY 2016 | FY 2017 | FY 2018 Base | FY 2018 OCO | FY 2018 Total |
| Began Developmental Testing (DT-D1) of Operational Flight Software version 9.4 including improvements associated with integrating the F/A-18 aircraft to utilize full capability of the Block II missile. FY 2017 Plans: Complete Developmental Testing (DT-D1) and begin Developmental Testing and Integrated Testing (DT/IT-D1) of Operational Flight Software version 9.4 including improvements associated with further integrating the F/A-18 aircraft to utilize full capability of the Block II missile. FY 2018 Base Plans: Complete Developmental Testing and Integrated Testing (DT/IT-D1) and Operational Test Readiness Review (OTRR), then begin Operational Testing (OT-D1) of Operational Flight Software version 9.4 including improvements associated with further integrating the F/A-18 aircraft to utilize full capability of the Block II missile. FY 2018 OCO Plans: N/A | | | | | | |
| Title: Management Services <div>Articles:</div> Description: Transportation / Travel for AIM-9X efforts in supporting the major test events and program decisions identified in the Product Development and Test and Evaluation sections above. FY 2016 Accomplishments: Continued funding transportation and travel costs associated with AIM-9X missile program efforts supporting the major test events and program decisions identified in the Product Development and Test and Evaluation sections above. FY 2017 Plans: Continue funding transportation and travel costs associated with AIM-9X missile program efforts supporting the major test events and program decisions identified in the Product Development and Test and Evaluation sections above. FY 2018 Base Plans: Continue funding transportation and travel costs associated with AIM-9X missile program efforts supporting the major test events and program decisions identified in the Product Development and Test and Evaluation sections above. FY 2018 OCO Plans: | | 0.266 - | 0.219 - | 0.207 - | 0.000 - | 0.207 - |

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| Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy | | | Date: May 2017 |
| Appropriation/Budget Activity 1319 / 7 | R-1 Program Element (Number/Name) PE 0207161N / <i>Tactical Aim Missiles</i> | Project (Number/Name) 0457 / <i>AIM-9X</i> | |

| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each) | FY 2016 | FY 2017 | FY 2018 Base | FY 2018 OCO | FY 2018 Total |
|---|----------------|----------------|---------------------|--------------------|----------------------|
| N/A | | | | | |
| Accomplishments/Planned Programs Subtotals | 59.053 | 56.285 | 42.884 | 0.000 | 42.884 |

C. Other Program Funding Summary (\$ in Millions)

| Line Item | FY 2016 | FY 2017 | FY 2018 Base | FY 2018 OCO | FY 2018 Total | FY 2019 | FY 2020 | FY 2021 | FY 2022 | Cost To Complete | Total Cost |
|--|----------------|----------------|---------------------|--------------------|----------------------|----------------|----------------|----------------|----------------|-------------------------|-------------------|
| • WPN 2209: <i>Sidewinder</i> | 92.497 | 70.912 | 79.692 | - | 79.692 | 79.047 | 82.261 | 89.842 | 91.638 | 491.372 | 1,779.054 |
| • MPAF 3479: <i>Sidewinder</i> | 198.247 | 127.438 | 125.350 | - | 125.350 | 122.340 | 125.299 | 168.454 | 120.586 | 114.957 | 2,043.889 |
| • RDTE, AF 41: <i>Sidewinder</i> | 33.615 | 52.898 | 34.952 | - | 34.952 | 24.711 | 13.367 | 13.598 | 13.877 | 0.000 | 516.711 |
| • MPA, C62001000: <i>IFPC Inc 2-I Block 1, Missile</i> | 0.000 | 0.000 | 57.742 | - | 57.742 | 157.406 | 144.740 | 100.400 | 14.600 | 0.000 | 474.888 |

Remarks

D. Acquisition Strategy

Milestone C decision for LRIP was held June 24, 2011. The program received USN Initial Operational Capability (IOC) in March 2015 and Full Rate Production (FRP) Approval in August 2015 followed by contract award for FRP-1 in September 2015. The program awarded the FRP-2 contract in July 2016, and will award the option for FRP-3 in March 2017. The program plans to award FRP-4 in February 2018.

E. Performance Metrics

AIM-9X Block II:

1. Completed AIM-9X Block II (AIM-9X-2) USN Initial Operational Capability (2Q FY 2015) and Full Rate Production Decision (4Q FY 2015).
2. Completed v9.315 software release to fleet (2Q FY 2016).
3. Complete v9.316 software release to resolve F-22 aircraft deficiencies found during Block II operational testing (2Q FY 2017).

AIM-9X Block II Tech Refresh:

1. Complete Lot 17 Cut In Engineering Change Proposal to incorporate redesigned control actuation system battery and Block II plus (AIM-9X-3) into production (3Q FY 2017).
2. Complete Preliminary Design Review (PDR) to incorporate Inertial Measurement Unit (IMU), dome and processor redesigns into Lot 20 production (2Q FY 2017).
3. Complete Development Testing (DT-D1) for software v9.4 improvements (4Q FY 2017).
4. Complete (DT/IT-D1)for software v9.4 improvements (4Q FY 2018).
5. Complete OTRR for software v9.4 improvements (4Q FY 2018).
6. Complete Critical Design Review (CDR) to incorporate Inertial Measurement Unit (IMU), dome and processor redesigns into Lot 20 production (4Q FY 2018).

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| Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Navy | | | | | | | | | | | | Date: May 2017 | | | |
| Appropriation/Budget Activity 1319 / 7 | | | | | | R-1 Program Element (Number/Name) PE 0207161N / <i>Tactical Aim Missiles</i> | | | | | | Project (Number/Name) 0457 / <i>AIM-9X</i> | | | |

| Product Development (\$ in Millions) | | | | FY 2016 | | FY 2017 | | FY 2018 Base | | FY 2018 OCO | | FY 2018 Total | | | |
|---|-----------------------------------|---|--------------------|----------------|-------------------|----------------|-------------------|---------------------|-------------------|--------------------|-------------------|----------------------|-------------------------|-------------------|---------------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Primary Hardware & Software Development | SS/CPFF | Raytheon Missile Systems : Tucson, AZ | 43.351 | 42.063 | Mar 2016 | 42.368 | Feb 2017 | 26.022 | Feb 2018 | - | | 26.022 | 13.312 | 167.116 | 167.116 |
| Aircraft Integration - Contract | C/CPFF | NSMA : Arlington, VA | 0.000 | 2.224 | Sep 2016 | 2.833 | Mar 2017 | 0.432 | Mar 2018 | - | | 0.432 | 0.000 | 5.489 | 5.489 |
| Aircraft Integration - USG | WR | NAWCWD : China Lake, CA | 19.810 | 3.366 | Jan 2016 | 0.098 | Dec 2016 | 0.021 | Dec 2017 | - | | 0.021 | 0.000 | 23.295 | - |
| USG Systems Engineering & Project Managment Support | WR | NAWC AD : Patuxent River, MD | 0.255 | 0.591 | Dec 2015 | 0.556 | Dec 2016 | 0.709 | Dec 2017 | - | | 0.709 | 0.000 | 2.111 | - |
| USG Systems Engineering & Project Managment Support | WR | NAWCWD : China Lake, CA | 0.000 | 4.688 | Jan 2016 | 3.015 | Dec 2016 | 4.457 | Dec 2017 | - | | 4.457 | 6.101 | 18.261 | - |
| Prior Year Prod Dev cost no longer funded in the FYDP | Various | Various : Various | 260.249 | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 260.249 | - |
| Subtotal | | | 323.665 | 52.932 | | 48.870 | | 31.641 | | - | | 31.641 | 19.413 | 476.521 | - |

Remarks

1. Total prior years - FY95 and prior under PE 0603715D.
2. FY 2018 original funding profile for SIP III included tasks that were planned to have been completed in FY 2017. However, the final SIP III contract award revised the weapon system development schedule leading to a rephasing of taskings and funds from FY 2016 into FY 2018.
3. The decrease in Aircraft Integration between FY 2017 to FY 2018 reflects completion of threshold platform software integration requirements with the AIM-9X Block II program.
4. The increase in USG Systems Engineering & Project Management from FY 2017 to FY 2018 reflects a USN government lab test support requirement to ensure tech refresh improvements are incorporated into the final hardware and software design at PAX, and conduct Insensitive Munitions Risk Reductions (IMRR) activities at China Lake.

| Support (\$ in Millions) | | | | FY 2016 | | FY 2017 | | FY 2018 Base | | FY 2018 OCO | | FY 2018 Total | | | |
|---------------------------------|-----------------------------------|---|--------------------|----------------|-------------------|----------------|-------------------|---------------------|-------------------|--------------------|-------------------|----------------------|-------------------------|-------------------|---------------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Engineering Tech Support | C/CPIF | Navy System Mgmt Activity : Arlington, VA | 0.000 | 0.476 | Oct 2016 | 0.025 | Feb 2017 | 0.000 | | - | | 0.000 | 0.000 | 0.501 | 0.501 |

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| Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Navy | | | | | | | | | | Date: May 2017 | |
| Appropriation/Budget Activity 1319 / 7 | | | | | R-1 Program Element (Number/Name) PE 0207161N / Tactical Aim Missiles | | | Project (Number/Name) 0457 / AIM-9X | | | |

| Support (\$ in Millions) | | | | FY 2016 | | FY 2017 | | FY 2018 Base | | FY 2018 OCO | | FY 2018 Total | | | |
|---------------------------------|-----------------------------------|---|--------------------|----------------|-------------------|----------------|-------------------|---------------------|-------------------|--------------------|-------------------|----------------------|-------------------------|-------------------|---------------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Management Support | C/CPFF | Wyle Lab Inc. : Huntsville, AL | 0.239 | 0.240 | Jun 2016 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.479 | 0.479 |
| Prior Year Support Costs | C/CPFF | Various : Various | 0.949 | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.949 | 0.949 |
| Subtotal | | | 1.188 | 0.716 | | 0.025 | | 0.000 | | - | | 0.000 | 0.000 | 1.929 | 1.929 |

Remarks

Provides one-time engineering and management services in support of air to air weapons development, testing, and integration support.

| Test and Evaluation (\$ in Millions) | | | | FY 2016 | | FY 2017 | | FY 2018 Base | | FY 2018 OCO | | FY 2018 Total | | | |
|--|-----------------------------------|---|--------------------|----------------|-------------------|----------------|-------------------|---------------------|-------------------|--------------------|-------------------|----------------------|-------------------------|-------------------|---------------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Oper Test & Eval | WR | COMOPTEVFOR : Norfolk, VA | 8.945 | 0.020 | Mar 2016 | 0.553 | Mar 2017 | 3.464 | Mar 2018 | - | | 3.464 | 5.044 | 18.026 | - |
| Development Testing | WR | NAWCWD : China Lake, CA | 1.433 | 5.119 | Jan 2016 | 6.618 | Dec 2016 | 7.572 | Dec 2017 | - | | 7.572 | 10.301 | 31.043 | - |
| Prior year T&E cost no longer funded in the FYDP | Various | Various : Various | 40.382 | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 40.382 | - |
| Subtotal | | | 50.760 | 5.139 | | 7.171 | | 11.036 | | - | | 11.036 | 15.345 | 89.451 | - |

Remarks

Increase in Operational Test and Evaluation at COMOPTEVFOR reflects DT/IT-D1 efforts to incorporate software v9.4 into the missile. Development Test at China Lake reflects DT/IT-D1 efforts to test software v9.4 improvements in accordance with the test and evaluation master plan (TEMP) revision e.

| Management Services (\$ in Millions) | | | | FY 2016 | | FY 2017 | | FY 2018 Base | | FY 2018 OCO | | FY 2018 Total | | | |
|---|-----------------------------------|---|--------------------|----------------|-------------------|----------------|-------------------|---------------------|-------------------|--------------------|-------------------|----------------------|-------------------------|-------------------|---------------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Transportation - Material | WR | NAVAIR : Patuxent River, MD | 0.402 | 0.101 | Oct 2015 | 0.075 | Oct 2016 | 0.075 | Oct 2017 | - | | 0.075 | 0.075 | 0.728 | - |
| Travel - Obligation throughout the year | WR | NAWCAD : Patuxent River, MD | 2.972 | 0.165 | Oct 2015 | 0.144 | Oct 2016 | 0.132 | Oct 2017 | - | | 0.132 | 0.231 | 3.644 | - |

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| Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Navy | | | | | | | | | | | | Date: May 2017 | | | |
| Appropriation/Budget Activity 1319 / 7 | | | | | | R-1 Program Element (Number/Name) PE 0207161N / <i>Tactical Aim Missiles</i> | | | | Project (Number/Name) 0457 / <i>AIM-9X</i> | | | | | |

| Management Services (\$ in Millions) | | | | FY 2016 | | FY 2017 | | FY 2018 Base | | FY 2018 OCO | | FY 2018 Total | | | |
|---|---|---|------------------------|----------------|-----------------------|----------------|-----------------------|-------------------------|-----------------------|------------------------|-----------------------|--------------------------|-----------------------------|-----------------------|---|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Prior Year Mgmt cost no longer funded in the FYDP | Various | Various : Various | 8.033 | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 8.033 | - |
| Subtotal | | | 11.407 | 0.266 | | 0.219 | | 0.207 | | - | | 0.207 | 0.306 | 12.405 | - |

Remarks
Provides transportation of test assets, as well as travel of persons, in support of the AIM-9X Block II System Improvement Program (SIP) III project.

| | Prior Years | FY 2016 | | FY 2017 | | FY 2018 Base | | FY 2018 OCO | | FY 2018 Total | Cost To Complete | Total Cost | Target Value of Contract |
|----------------------------|------------------------|----------------|--|----------------|--|-------------------------|--|------------------------|--|--------------------------|-----------------------------|-----------------------|---|
| Project Cost Totals | 387.020 | 59.053 | | 56.285 | | 42.884 | | - | | 42.884 | 35.064 | 580.306 | - |

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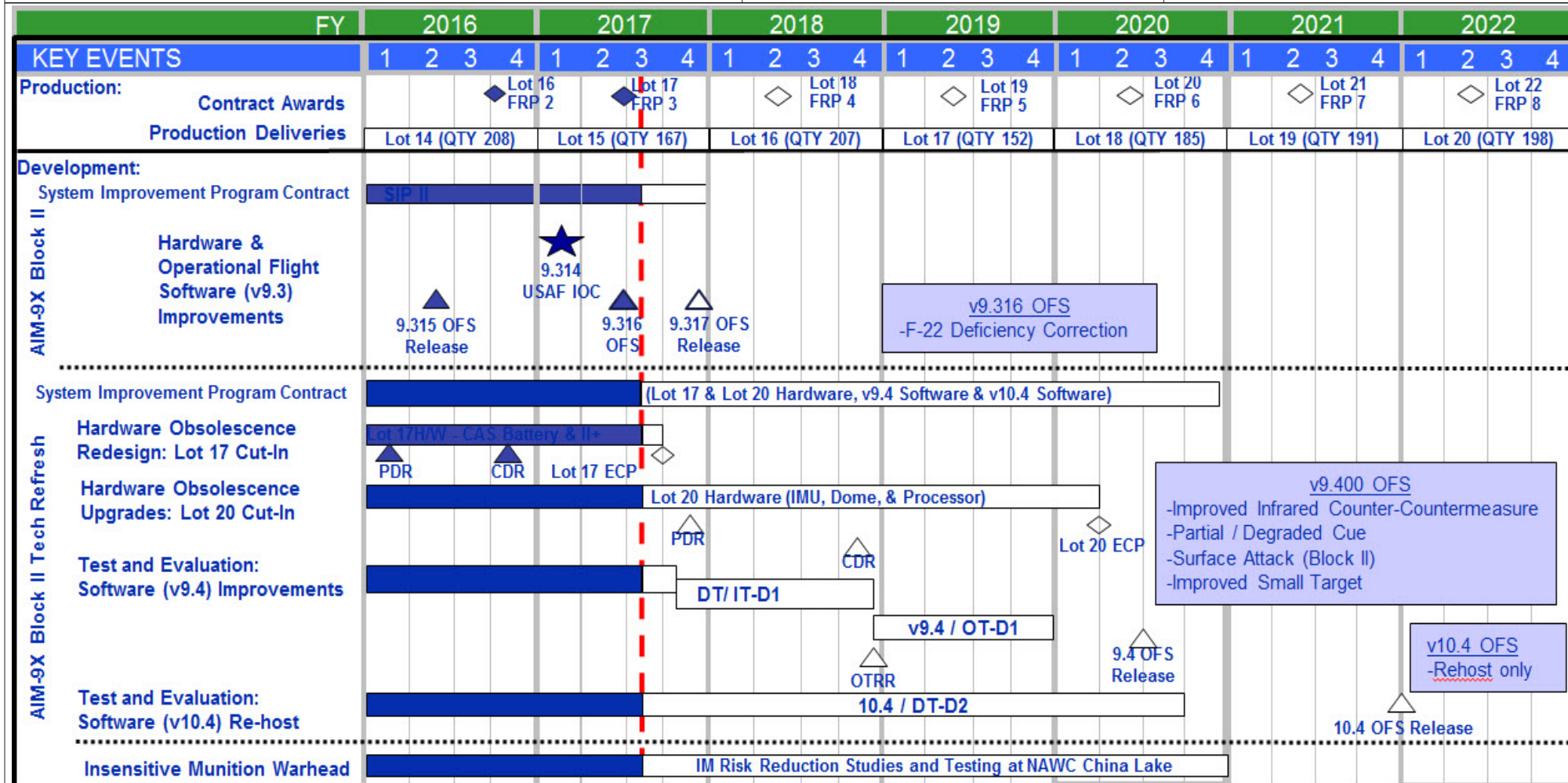
PE 0207161N: *Tactical Aim Missiles*
Navy

R-1 Line #225

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| Appropriation/Budget Activity 1319 / 7 |
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| R-1 Program Element (Number/Name) |
| PE 0207161N / <i>Tactical Aim Missiles</i> |

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| Project (Number/Name) | 0457 / AIM-9X |
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Exhibit R-4A, RDT&E Schedule Details: FY 2018 Navy

Date: May 2017

Appropriation/Budget Activity

1319 / 7

R-1 Program Element (Number/Name)

PE 0207161N / *Tactical Aim Missiles*

Project (Number/Name)

0457 / AIM-9X

Schedule Details

| Events by Sub Project | Start | | End | |
|--|---------|------|---------|------|
| | Quarter | Year | Quarter | Year |
| TACTICAL AIM MISSILES | | | | |
| Production Milestones - Block II: Contract Awards: Lot 16 (FRP 2): QTY 207 | 4 | 2016 | 4 | 2016 |
| Production Milestones - Block II: Contract Awards: Lot 17 (FRP 3): QTY 152 | 2 | 2017 | 2 | 2017 |
| Production Milestones - Block II: Contract Awards: Lot 18 (FRP 4): QTY 185 | 2 | 2018 | 2 | 2018 |
| Production Milestones - Block II: Contract Awards: Lot 19 (FRP 5): QTY 191 | 2 | 2019 | 2 | 2019 |
| Production Milestones - Block II: Contract Awards: Lot 20 (FRP 6): QTY 198 | 2 | 2020 | 2 | 2020 |
| Production Milestones - Block II: Contract Awards: Lot 21 (FRP 7): QTY 200 | 2 | 2021 | 2 | 2021 |
| Production Milestones - Block II: Contract Awards: Lot 22 (FRP 8): QTY 192 | 2 | 2022 | 2 | 2022 |
| Production Deliveries: Low Rate Initial Production 4 (WPN) QTY 208 | 4 | 2016 | 4 | 2016 |
| Production Deliveries: Lot 15 (FRP 1) QTY 167 | 4 | 2017 | 4 | 2017 |
| Production Deliveries: Lot 16 (FRP 2) QTY 207 | 4 | 2018 | 4 | 2018 |
| Production Deliveries: Lot 17 (FRP 3) QTY 152 | 4 | 2019 | 4 | 2019 |
| Production Deliveries: Lot 18 (FRP 4) QTY 185 | 4 | 2020 | 4 | 2020 |
| Production Deliveries: Lot 19 (FRP 5) QTY 191 | 4 | 2021 | 4 | 2021 |
| Production Deliveries: Lot 20 (FRP 6) QTY 198 | 4 | 2022 | 4 | 2022 |
| AIM-9X Block II: System Improvement Program Contract Award: System Improvement Program II Engineering Manufacturing Development Contract | 1 | 2016 | 4 | 2017 |
| AIM-9X Block II: Hardware & Software (v9.3) Improvements: Air Force Initial Operational Capability | 1 | 2017 | 1 | 2017 |
| AIM-9X Block II: Hardware & Software (v9.3) Improvements: Operational Flight Software Release v9.315 | 2 | 2016 | 2 | 2016 |
| AIM-9X Block II: Hardware & Software (v9.3) Improvements: Operational Flight Software Release v9.316 | 2 | 2017 | 2 | 2017 |

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|---|--|--|------|--|------|
| Exhibit R-4A, RDT&E Schedule Details: FY 2018 Navy | | | | Date: May 2017 | |
| Appropriation/Budget Activity 1319 / 7 | | R-1 Program Element (Number/Name) PE 0207161N / Tactical Aim Missiles | | Project (Number/Name) 0457 / AIM-9X | |
| | | Start | | End | |
| Events by Sub Project | | Quarter | Year | Quarter | Year |
| AIM-9X Block II: Hardware & Software (v9.3) Improvements: Operational Flight Software Release v9.317 | | 4 | 2017 | 4 | 2017 |
| AIM-9X Block II Tech Refresh: Tech Refresh Development Contracts: System Improvement Program III Engineering Manufacturing Development Contract | | 1 | 2016 | 4 | 2020 |
| AIM-9X Block II Tech Refresh: Hardware Obsolescence Redesign: Lot 17 Cut In: Lot 17 Hardware (CAS Battery & Block II+) | | 1 | 2016 | 3 | 2017 |
| AIM-9X Block II Tech Refresh: Hardware Obsolescence Redesign: Lot 17 Cut In: Lot 17 Hardware Cut-In Preliminary Design Review | | 1 | 2016 | 1 | 2016 |
| AIM-9X Block II Tech Refresh: Hardware Obsolescence Redesign: Lot 17 Cut In: Lot 17 Hardware Cut-In Critical Design Review | | 3 | 2016 | 3 | 2016 |
| AIM-9X Block II Tech Refresh: Hardware Obsolescence Redesign: Lot 17 Cut In: Lot 17 Hardware Cut-In Engineering Change Proposal | | 3 | 2017 | 3 | 2017 |
| AIM-9X Block II Tech Refresh: Hardware Obsolescence Redesign: Lot 20 Cut In: Hardware (IMU, Dome & Processor) | | 1 | 2016 | 1 | 2020 |
| AIM-9X Block II Tech Refresh: Hardware Obsolescence Redesign: Lot 20 Cut In: Lot 20 Hardware Cut-In Preliminary Design Review | | 4 | 2017 | 4 | 2017 |
| AIM-9X Block II Tech Refresh: Hardware Obsolescence Redesign: Lot 20 Cut In: Lot 20 Hardware Cut-In Critical Design Review | | 4 | 2018 | 4 | 2018 |
| AIM-9X Block II Tech Refresh: Hardware Obsolescence Redesign: Lot 20 Cut In: Lot 20 Hardware Cut-In Engineering Change Proposal | | 1 | 2020 | 1 | 2020 |
| AIM-9X Block II Tech Refresh: Test and Evaluation: Software (v9.4) Improvements: Development Testing | | 1 | 2016 | 4 | 2017 |
| AIM-9X Block II Tech Refresh: Test and Evaluation: Software (v9.4) Improvements: Development Test / Integrated Testing | | 4 | 2017 | 4 | 2018 |
| AIM-9X Block II Tech Refresh: Test and Evaluation: Software (v9.4) Improvements: Operational Test Readiness Review | | 4 | 2018 | 4 | 2018 |
| AIM-9X Block II Tech Refresh: Test and Evaluation: Software (v9.4) Improvements: Operational Testing | | 4 | 2018 | 4 | 2019 |
| AIM-9X Block II Tech Refresh: Test and Evaluation: Software (v9.4) Improvements: Software v9.4 Release | | 2 | 2020 | 2 | 2020 |

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| Exhibit R-4A, RDT&E Schedule Details: FY 2018 Navy | | | Date: May 2017 | | |
| Appropriation/Budget Activity 1319 / 7 | | R-1 Program Element (Number/Name) PE 0207161N / Tactical Aim Missiles | | Project (Number/Name) 0457 / AIM-9X | |
| | | Start | | End | |
| Events by Sub Project | | Quarter | Year | Quarter | Year |
| AIM-9X Block II Tech Refresh: Test and Evaluation: Software (v10.x) Rehost: Software v10.4 Development Testing | | 1 | 2016 | 3 | 2020 |
| AIM-9X Block II Tech Refresh: Test and Evaluation: Software (v10.x) Rehost: Software v10.4 Operational Flight Software Release | | 1 | 2022 | 1 | 2022 |